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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/503,481 | 02/14/2000 | Hiroataka Shiiyama | 862.C1823 | 6661 |

5514 7590 08/22/2005

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| EXAMINER |
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POON, KING Y

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| ART UNIT | PAPER NUMBER |
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2624

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 09/503,481 | Applicant(s) SHIYAMA, HIROTAKA | |
| | Examiner King Y. Poon | Art Unit 2624 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/17/2005 AND 11/1/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) 1-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 114, 115 is/are rejected.
- 7) ☒ Claim(s) 38, 40, 42, 44, 46, 48, 102, 104, 106, 108, 110 and 112 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 1-18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,64,66,68,70,72,74,76,78,80,82,84,86,88,90,92,94,96,98,100,102,104,106,108,110,112,114 and 115.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/1/2004 has been entered.
2. Claims 1-17 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5/17/2005.

Claim Rejections - 35 USC § 101

3. Claims 114 and 115 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 114 and 115 drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

"Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

"Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

Claims 114 and 115, while defining recording medium recording program code, does not define a "computer-readable medium" and is thus non-statutory for that reasons. A recording medium can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" in order to make the claim statutory.

"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP 2106.IV.B.1(a)

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 18, 20, 82, 84, 114, 115 are rejected under 35 U.S.C. 102(a) as being anticipated by Wang et al (US 5,805,733).

Regarding claims 18, 82: Wang teaches an image processing system (fig. 1) comprising: calculating means (program of fig. 4, column 4, lines 20-25, that calculates X square) for calculating a degree of similarity (values of X square, column 4, lines 20-25) from among a plurality of image frames of dynamic image data; determining means for determining scene-change frames based on the degree of similarity calculated by

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said calculating means (column 4, lines 20-25, also see column 4, lines 35-55); and dynamic image means (program of fig. 5) for performing automatic editing and preparation (column 5, lines 45-50) of a digest dynamic image of the dynamic image data by merging (consolidate, column 5, lines 45-50) a specified duration of frames (duration of a sense, column 5, lines 55-67, column 5, lines 30-35) having a low degree of similarity (degree of similarity is selected by user by adjusting threshold, column 5, lines 60-67) with an immediately preceding frame or some preceding frames on receipt of instructions to prepare a dynamic digest (the degree of the similarity would determined dynamic or quiet, column 5, lines 65-67, column 6, lines 1-5).

Regarding claims 20, 84: Wang teaches an image processing system (fig. 1) comprising: calculating means (program of fig. 4, column 4, lines 20-25, that calculates X^2) for calculating a degree of similarity (values of X^2 , column 4, lines 20-25) from among a plurality of image frames of dynamic image data; determining means for determining scene-change frames based on the degree of similarity calculated by said calculating means (column 4, lines 20-25, also see column 4, lines 35-55); and dynamic image means (program of fig. 5) for performing automatic editing and preparation (column 5, lines 45-50) of a digest dynamic image of the dynamic image data by merging (consolidate, column 5, lines 45-50) a specified duration of frames (duration of a sense, column 5, lines 55-67, column 5, lines 30-35) having a low degree of similarity (degree of similarity is selected by user by adjusting threshold, column 5, lines 60-67) with an immediately preceding frame or some preceding frames on receipt

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of instructions to prepare a dynamic digest (the degree of the similarity would determined dynamic or quiet, column 5, lines 65-67, column 6, lines 1-5).

Regarding claims 114, 115: Wang teaches a recording medium recording program code (117, fig. 1) for the process and system discussed with claims 18, 20.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 22, 24, 26, 28, 30, 32, 34, 36, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 86, 88, 90, 92, 94, 96, 98, 100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. as applied to claims 18, 20 above, and further in view of Hanpachern (US 4,319,286).

Regarding claims 22, 24, 26, 28, 86, 88, 90, 92: Saito does not directly disclose detection means and processing means for a blank frame scenes/frames.

Hanpachern discloses detection means, which detect a blank scene; in Hanpachern's system, integrated circuit U1 is used to detect blank frames (col. 4 lines 23-27). Hanpachern also discloses exception-processing means, in which the frame immediately preceding a blank scene is recorded, and the frame immediately following the blank scene is the next frame to be recorded; in Hanpachern's system, integrated circuit U2 and transistor Q9 perform this function (col. 4 lines 50-63).

Wang and Hanpachern are compatible because they are from the same field of endeavor, namely video summary.

Therefore it would have been obvious to one of ordinary skill in the art to add Hanpachern's method of detecting a blank scene, and editing the scene from the digest to Saito and Edgar's system.

The motivation for doing so would have been to eliminate frames with no relevant information from consideration and therefore to speed up processing and decrease the time the user needs to find the information he or she is looking for.

Note: The initial frame and the last frame would have been detected in Wang as scene change frame because the similarity of those frames and other frames of nearby scenes would be large according the 409, fig. 4, Wang. Also see beginning and ending frames of the scenes, column 4, lines 1-5.

Regarding claims 30, 32, 94, 96: Wang teaches wherein when a time duration for each scene-change frame of two scenes in close proximity (nearby, column 5, line 47) is less than the specified duration, frame information from a scene-change frame of the first scene and frame information through a frame from the scene-change frame of the second scene are treated as the result of merging of the scene-change frames of the two scenes into one scene whose duration is equal to the specified duration (inherently properties: duration of a frame is less than duration of a scene. The specific duration of claims 30-20 is the duration of two scenes being merged into one scene (scene time 519, column 6, lines 14-15, also see column 5, lines 60-65, 10-25, Wang). All individual frames including the scene change frame is less than the specific duration.

Regarding claims 34, 36, 98, 100: Wang teaches wherein when the duration of the scene-change frame of the second scene to be merged falls within a specified duration of the scene-change frame of the first scene, all the frame information of the scene-change frame of the second scene are merged with the scene-change frame of the first scene (inherent properties of consolidate; also see all the frame numbers are merged as related).

Regarding claims 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80: Wang teaches to replay the digest (213, fig. 2). Wang does not teaches to save the digest as a file and to discard the data.

Wang teaches a system to allow users to interact with the image processing system of Wang (column 10-20). Wang also teaches it is well-known in the art to have a user to select and specified a digest created by the user and to discard the digest data (column 1, lines 32-50).

Therefore, it would have been obvious to a person with ordinary skill in the art to have modified the summarizing system of Wang such that a user would decided to save or discard the data created by the computer.

It would have allowed user to change and adjust the digest using a higher or lower threshold (column 5, lines 65-67) to generate a desired (for the user) digest.

Allowable Subject Matter

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8. Claims 38, 40, 42, 44, 46, 48, 102, 104, 106, 108, 110, 112 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claims 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, and 115 have been considered but are moot in view of the new ground(s) of rejection. Please see detailed office action.

Conclusion

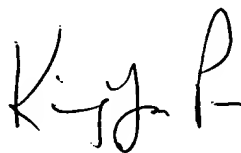
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is 571-272-7440. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 19, 2005

A handwritten signature in black ink, appearing to read 'K. Y. P.', is positioned above the printed name.

**KING Y. POON
PRIMARY EXAMINER**